WHAT IS CLAIMED IS:

1.   A method of reducing differential resolution, the method comprising:

selecting a first image containing first information about a scene;

selecting a second image containing second information about the scene, wherein

a portion of the first image and a portion of the second image have differential resolution;

5   determining a location at which to modify a property of the first image, the

location being in a portion of the first image; and

reducing the differential resolution by modifying the property at the location in

the first image using information from the second image.

10   2.   The method of claim 1 wherein the first image and the second image are

digital images, the location comprises a pixel, and the property comprises an intensity

value or a function of the intensity value of the pixel.

3.   The method of claim 1 wherein the information used in modifying the

property at the location comprises resolution information from the second image.

15   4.   The method of claim 1 wherein modifying the property at the location in

the first image comprises modifying information produced by application of a first

transformation to the portion of the first image using information produced by application

of a second transformation to the portion of the second image.

5.   The method of claim 4 wherein:

the first transformation comprises a first wavelet transformation,

the second transformation comprises a second wavelet transformation, and

modifying information produced by application of the first transformation

comprises copying a coefficient from a specific location in a result produced by

5   application of the second wavelet transformation to the specific location in a result

produced by application of the first wavelet transformation.

6.   The method of claim 5 wherein the specific location is associated with the

location at which the property is to be modified.

7.   The method of claim 4 wherein:

10   the first transformation comprises a first wavelet transformation,

the second transformation comprises a second wavelet transformation, and

modifying information produced by application of the first transformation

comprises scaling a coefficient from a specific location in a result produced by

application of the second wavelet transformation to the specific location in a result

15   produced by application of the first wavelet transformation.

8.   The method of claim 4 wherein:

the first transformation comprises a first wavelet transformation,

the second transformation comprises a second wavelet transformation, and

modifying information produced by application of the first transformation

20   comprises copying a coefficient from each non-baseband subband produced by

application of the second wavelet transformation to a corresponding location in a result produced by application of the first wavelet transformation.

9.   The method of claim 8 wherein each copied coefficient is associated with the location to modify.

5   10.   The method of claim 4 wherein:

the first transformation comprises a first wavelet transformation,

the second transformation comprises a second wavelet transformation, and

modifying information produced by application of the first transformation comprises scaling a coefficient from each non-baseband subband produced by application

10   of the second wavelet transformation to a corresponding location in a result produced by application of the first wavelet transformation.

11.   The method of claim 9 wherein each scaled coefficient is associated with the location to modify.

12.   The method of claim 1 wherein the first image and the second image are

15   color separations of a film frame.

13.   The method of claim 12 wherein the first image is a red separation and the differential resolution results in red fringing.

14.   The method of claim 1 wherein the first and second images are extracted from a composite color image.

15.   The method of claim 14 wherein the composite color image is generated from color separations of a film frame.

16.   The method of claim 1 further comprising determining a non-modify location at which the property is not to be modified.

17.   The method of claim 16 wherein modifying the property at the location in
5   the first image using information from the second image comprises:

modifying one or more coefficients produced by application of a wavelet transformation to the first image based on one or more coefficients produced by application of a wavelet transformation to the second image, the modifying producing a modified result;

10   applying an inverse wavelet transformation to the modified result to produce a resulting image; and

determining whether the property at the non-modify location is modified in the resulting image.

18.   The method of claim 17 further comprising restoring the property at the
15   non-modify location to its original value if the property at the non-modify location is modified in the resulting image.

19.   The method of claim 1 further comprising applying a feathering technique to a region of the first image including the location at which the property is to be modified, the feathering technique being applied after the property at the location is modified.

5   20.   The method of claim 19 wherein applying the feathering technique comprises linearly interpolating between intensity values within the region.

21.   The method of claim 1 wherein modifying the property at the location comprises:

performing a transformation in only a first direction; and

10   producing a modified first image.

22.   The method of claim 21 further comprising:

performing a transformation on the modified first image in only a second direction that is orthogonal to the first direction; and

producing a modified version of the modified first image.

15   23.   The method of claim 22 wherein determining the location in the portion of the first image is based on information obtained at least in part from the portion of the second image, and the information is for the first direction only.

24. The method of claim 1 wherein the first image comprises an image that has been modified with information obtained from the second image.

25. The method of claim 1 wherein selecting a second image comprises selecting a second image from a plurality of images based on one or more criteria.

5   26. The method of claim 25 wherein the one or more criteria comprises intensity value information.

27. The method of claim 25 wherein the one or more criteria comprises resolution information.

28. The method of claim 1 wherein determining the location is performed

10   automatically.

29. The method of claim 1 wherein determining the location is performed interactively.

30. The method of claim 1 wherein modifying the property at the location is performed automatically.

15   31. The method of claim 1 wherein determining the location is based on information in the second image.

32. The method of claim 1 wherein determining the location comprises selecting one or more edges to modify.

33. The method of claim 32 wherein selecting one or more edges to modify comprises selecting, for one of the one or more edges, a single edge pixel of an edge that includes multiple edge pixels.

34. The method of claim 32 wherein selecting one or more edges to modify comprises:

comparing one or more features of an edge in the first image with one or more features of an edge in the second image; and

selecting the edge as an edge to modify based on a result of the comparison.

35. The method of claim 34 wherein the one or more features comprise a feature selected from a group consisting of a location of the edge, a direction of the edge, an extent of the edge, an intensity-change direction, and an intensity range traversed.

36. The method of claim 32 further comprising determining an edge extent to modify for each selected edge.

37. The method of claim 32 further comprising unselecting a selected edge based on size of the selected edge.

38. The method of claim 32 wherein:

selecting one or more edges to modify comprises selecting a plurality of edges to modify, and

the method further comprises:

connecting two selected edges based on properties of the two selected edges; and

determining an edge extent for the connected selected edges.

39. The method of claim 38 wherein connecting two selected edges is based on spatial proximity between the two selected edges.

40. The method of claim 38 wherein connecting two selected edges is based on one or more of intensity differences between particular pixels in each of the two selected edges and intensity differences between particular pixels spatially located between the two selected edges.

41. The method of claim 38 wherein determining an edge extent for the connected selected edges is based on edge extents that would have been determined for each of the selected edges before being connected.

42. A method of reducing differential resolution, the method comprising:

accessing a first image containing first information about a scene;

accessing a second image containing second information about the scene, wherein

a portion of the first image and a portion of the second image have differential resolution;

determining a location in the first image at which to modify a property in the first

image to reduce the differential resolution, wherein the determining is based on a time-

5 domain comparison of the portion of the first image and the portion of the second image;

and

reducing the differential resolution by modifying the property at the location, the

location being modified by modifying information produced by application of a wavelet

transformation to the portion of the first image based on information produced by

10 application of a wavelet transformation to the portion of the second image.

43. An apparatus comprising a computer readable medium having instructions

stored thereon that when executed by a machine result in at least the following:

selecting a first image containing first information about a scene;

selecting a second image containing second information about the scene, wherein

15 a portion of the first image and a portion of the second image have differential resolution;

determining a location at which to modify a property of the first image, the

location being in a portion of the first image; and

reducing the differential resolution by modifying the property at the location in

the first image using information from the second image.

20 44. The apparatus of claim 43 wherein modifying the property at the location

in the first image comprises modifying information produced by application of a first

transformation to the portion of the first image using information produced by application of a second transformation to the portion of the second image.

45. The apparatus of claim 44 wherein:

the first transformation comprises a first wavelet transformation,

5   the second transformation comprises a second wavelet transformation, and

modifying information produced by application of a first transformation comprises modifying a coefficient from each non-baseband subband produced by application of the first wavelet transformation based on a coefficient from a corresponding location in a result produced by application of the second wavelet

10 transformation, wherein each modified coefficient is associated with the location to modify.

46. The apparatus of claim 45 wherein modifying a coefficient from each non-baseband subband comprises copying a coefficient to each non-baseband subband produced by application of the first wavelet transformation from a corresponding location

15 in a result produced by application of the second wavelet transformation.

47. The apparatus of claim 46 wherein the one or more copied coefficients are scaled before being copied.

48. The apparatus of claim 43 wherein the first image is a red separation and the differential resolution results in red fringing.

49.   The apparatus of claim 43 further comprising a processing device coupled to the computer readable medium for executing the stored instructions.